ABSTRACT OF THE DISCLOSURE

A graphics processor and method for executing a graphics program as a plurality of threads where each sample to be processed by the program is assigned to a thread. Although threads share processing resources within the programmable graphics processor, the execution of each thread can proceed independent of any other threads. For example, instructions in a second thread are scheduled for execution while execution of instructions in a first thread are stalled waiting for source data. Consequently, a first received sample (assigned to the first thread) may be processed after a second received sample (assigned to the second thread). A benefit of independently executing each thread is improved performance because a stalled thread does not prevent the execution of other threads.